

# How Does Grounded Theory Explain?

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*This article argues that the concept of grounded theory, widely used in research in the human sciences, has not been adequately analyzed as to its structure as a theory. Analyzing grounded theory from predictionist and accommodationist views, as well as focusing on the issue of inference to the best explanation, it is concluded that this form of theorizing is basically accommodationist. Moreover, grounded theory, in terms of providing explanations, is simply a different version of a standard inductive argument. However, grounded theory's strength lies in its potential to articulate a unique context and logic of discovery.*

**I**t is increasingly apparent that the grounded theory approach (Glaser, 1978; Glaser & Strauss, 1967; Strauss & Corbin, 1990) has become a paradigm of choice in much of the qualitatively oriented research in nursing, education, and other disciplines. Grounded theory has become a type of central organizing concept that serves to both direct the research process as well as provide a heuristic for data analysis and interpretation.

Although there are many varieties of “doing” grounded theory (Pandit, 1996; Simms, 1980; Stern, 1980), our general framework for purposes of analysis and critique will be the one developed by Strauss and Corbin (1990). This presentation appears to us to be the clearest theoretical exposition of this important research tradition, especially as given by the Paradigm Model of (A) Causal Conditions → (B) Phenomenon → (C) Context → (D) Intervening Conditions → (E) Action/Interaction Strategies → (F) Consequences (p. 99).

With the model in mind, we would like to state our central concerns with the grounded theory approach. These concerns are not directed toward a criticism of this approach but rather to raising a series of issues that to date have not been recognized in the literature. Our hope is that such a discussion better situates grounded theory as an increasingly credible and epistemologically defensible procedure within qualitative inquiry. The choice of the term *epistemological* is deliberate and characterizes both the type and parameters of our approach. That is, we are only interested in examining grounded theory as a form of inquiry that produces knowledge of the social world. Thus, we are not interested in comparing this approach, for instance, with others (e.g., critical ethnography, phenomenology, ethnomethodology) within the larger domain of interpretive inquiry. Our basic question, then, is this: Once you have produced a grounded theory, what variety of theory do you exactly have? In other words, if the researcher in effect says, “I have now developed a (or this) grounded theory,” what is he or she exactly claiming? Put somewhat differently, to understand grounded theory, it is necessary to properly classify it. The issue of such a classification can be related to the following factors: (a) grounded



theory as an approach in the logic of discovery, (b) grounded theory as providing either an accommodationist or predictivist function, and (c) grounded theory as a variant of the inference to the best explanation (IBE) model.

Each of these issues will be defined and discussed below, although they are not meant to be mutually exclusive. Our intent, again, is to raise and answer what we consider to be important corollary issues in an attempt to gain a better understanding of what grounded theory actually is. These concerns, to our knowledge, have not been explicitly addressed in the many conversations on the topic.

To contextualize these three issues, it may be useful to provide the standard definition of a grounded theory as given by Strauss and Corbin (1990):

A grounded theory is one that is *inductively* derived from the study of the phenomenon it represents. That is, it is discovered, developed, and *provisionally verified* through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory stand in reciprocal relationship with each other. (p. 23, italics added)

As a guide for the reader, with the examination of the three issues noted above, we are attempting to critically review the meaning and status of the terms *induction* and *provisionally verified* and, centrally, to establish their explicit linkage. In so doing, we also implicitly are addressing the four central criteria originally suggested by Glaser and Strauss (1967, pp. 237-250) and Glaser (1978, p. 3) as the ones used for judging the applicability of theory to a phenomenon: namely, fit, understanding, generality, and control. Although these terms are used by Glaser and Strauss in a rather nonstandard form, in regard to how they are usually applied to theorizing in science (and, of course, this is their point), our discussion does have some broad parallels: (a) *fit* and *understanding* relate to the logic of context and discovery issue, (b) *understanding* and *control* relate to the issue of whether grounded theory is predictivist or accommodationist in nature, and (c) a return to “fit” relates to the issue of IBE.<sup>1</sup>

The issue of what theorizing ought to be in qualitative inquiry, including grounded theory, continues to be a central focus of leading researchers in the area. Morse (1997, 1998), for example, has suggested that the role of theory in qualitative research should be critically reexamined on both the level (types) of developed theories and also in terms of “the theoretical elegance or structure of the theory (assessing coherence, clarity and so on)” (Morse, 1997, p. 172). Two criteria delineated by Morse, generalizability and pragmatic utility, are especially relevant to our discussion because the first is the central core of viewing grounded theory as either predictive or accommodationist, whereas the second relates to the “workability” of a theory and is part of our discussion about the nature of the inductive process.

To reiterate, we are trying to argue that there are some fundamental issues within grounded theory, as an epistemological perspective, that have not been raised to the level of critical discourse. We have identified three such issues and are setting them forth here to stimulate reflection and further analysis.

## GROUNDED THEORY AND THE LOGIC OF DISCOVERY

The distinction between the context of discovery and the context of justification in the philosophy of the social sciences often is attributed to Rudner (1966).

Rudner's thesis, which has never been conclusively refuted, is that if one claims to be engaged in doing what is properly called scientific activity (e.g., as in the social sciences), then, a specific set of techniques, rules, or procedures are generally associated with this activity. These rules, in turn, are the basis for making decisions about whether some claim, hypothesis, or theory is credible. The distinction Rudner was trying to establish was that a social science cannot simultaneously claim it is (methodologically) distinct from and yet engage in what appears to be scientific practice, either broadly or narrowly construed.

More specifically, how one comes to discover is different from how one comes to validate: The former is within the area of the context of discovery; the latter is in how we justify. According to Rudner (1966), these two processes or activities are distinct and therefore ought not be conflated, as they often are.

At this point, it may be worth mentioning that the voluminous literature deconstructing the traditional view of science Rudner is advocating (e.g., Feyerabend, 1975, 1981; Fuchs, 1992; Fuller, 1993; Quine, 1969; Rorty, 1979) does not directly contradict his point that a logic of discovery would be needed (and is not forthcoming) to distinguish the context of discovery from the context of justification. Because recent critiques of science have shown that the "doing" of science does not follow a rigidly prescribed system of invariant norms (Merton, 1968, 1977), it does not follow that the original distinction is false. Indeed, recent writings in the philosophy of science (Blachowicz, 1987; Kantorovich, 1993; Musgrave, 1988) have argued that not only is a logic of discovery possible, but others (Barnes, 1996) have argued persuasively that the predictivist model of theories (to be discussed later) may be seriously compromised unless a program for the logic of discovery is first formulated.

For grounded theory, the twin issues of discovery and (or versus) justification set the stage for evaluating the viability and utility of the process for human science research. The distinction between discovery and justification, parenthetically, is not rendered moot by suggesting, in the manner reminiscent of Winch's (1958) classic argument,<sup>2</sup> that because grounded theory is seen as a part of qualitative inquiry, it therefore is not subject to the above distinction that is more closely aligned to quantitative methods of inquiry. One reason for rejecting the objection is that the raising of issues such as discovery and justification involves the making and use of a philosophical distinction that, in this case, is applied to how we construe a particular method of inquiry and what properly belongs to it. Moreover, if we are going to say that grounded theory is some kind of theory, associating it with a specific research approach does not automatically preclude an analysis in terms of the discovery versus justification distinction.

It is also interesting to note that Glaser and Strauss's (1967) original description of grounded theory (as provisional) did not rule out further empirical tests of the theory. Likewise, Strauss and Corbin's (1990, pp. 96, 199-101) widely used text employs the phrase "causal conditions" as a relevant factor in the construction of a grounded theory. Thus, there is the possibility of testing a grounded theory empirically, although such a theory originates in the qualitative inquiry tradition.

Furthermore, it may be useful to briefly mention some additional considerations concerning Strauss and Corbin's (1990) conceptualization of grounded theory. This is to further establish that their discovery of this seminal construct is not antagonistic to the distinction above, as well as establishing the basis for an additional one. It is interesting to note that in their discussion of causal conditions, they acknowledge that such conditions "lead to the occurrence or development of a

phenomenon" (Strauss & Corbin, 1990, p. 96). Such a characterization of grounded theory is a tacit recognition of the importance they attach to the causality concept as either a necessary or sufficient condition (possibly both) for the occurrence of the phenomenon under investigation. The significance of this point lies in that if some notion of causality is admitted as a legitimate part of doing grounded theory, then grounded theory, contrary to common belief, may be consistent with the more general claim that the business of any theory is to predict and explain.

If this were the case, and we believe it is as will be explained in further detail, the typical characterization of grounded theory as being about interpretation (or *verstehen*), as opposed to explanation, is not warranted. Even acknowledging the ambiguity associated with both terms, grounded theory's purpose is to explain a phenomenon, and this must be so, given the significance of the causality concept. Moreover, explanation does not entail the absence of interpretation, or vice versa. In either case, what is at stake is the ultimate credibility of what a phenomenon means, whether that credibility is related to some form of prediction or unique interpretation by way of context-specific empathetic understanding. For Strauss and Corbin (1990), making the case for what grounded theory does and how well it does it is situated in a type of process of reflexivity whereby, as they say, "There is a constant interplay between proposing and checking. This back and forth movement is what makes our theory grounded" (p. 111). In addition, and more important, they visualize this interplay as one "between inductive and deductive thinking" (p. 111). It is exactly at this point that our analysis is attempting to focus. That is, what is exactly involved in this interplay in terms of the process of doing grounded theory? In other words, we believe this seemingly innocuous statement is at the heart of trying to understand what (if anything) makes grounded theory unique, in either the context of discovery or justification varieties.

## GROUNDED THEORY AS PROCESS

It does appear that grounded theory is an attempt to address the context of discovery issue, although the assumption is never stated explicitly. Indeed, the very concept of a grounded theory is based on the idea that the development of formulating such a theory involves a discoverable process. It appears that such a process includes a set of procedures that, if carried out correctly, will result in an actual grounded theory. The logic of discovery would then consist of an evaluation of such procedures to see if they, in turn, are susceptible to some type of rigorous scrutiny.

It may be noted that the context of discovery issue is a cognitive or psychological one. That is, the origins of how one discovers X presupposes a complex network of attributions, attitudes, beliefs, cognitive frameworks, and preferences. From this perspective, it would be legitimate to ask Glaser and Strauss (1967), How did you discover the idea of a grounded theory? Presumably their response would articulate the reasons for the development of the construct. Moreover, a full exposition of how grounded theory came about also would include the discovery of those procedures unique to doing grounded theory.<sup>3</sup>

In principle, then, grounded theory as a process of theory construction of a certain type may be able to provide a context of discovery justification. Furthermore, a possible objection to such a characterization on the grounds of underdetermination

may not be warranted. The underdetermination thesis (Roth, 1987) is that a given body of data may be plausibly interpreted by a variety of different and possibly contradictory theoretical frameworks. For grounded theory, the issue would be that it is possible to generate other models of grounded theory that have different contexts of discovery. This is possible, but at this time, no other credible competitors have come forth. More to the point, even though other competitors to Glaser and Strauss's (1967) formulation eventually may emerge, this does not imply that their original conception was mistaken or false.

How does grounded theory fare, on the other hand, in terms of the logic of justification issue? For Rudner (1966), the logic of justification (or the logic of validation, as he also refers to it) consists of the proper application of scientific standards to making judgements about a claim (e.g., theory, hypothesis, event, and so forth). Again, to sharpen the distinction, Rudner uses the example of a hypothesis: The way a hypothesis is developed is the business of the psychology, sociology, and history of science—the context of discovery—while the way it is established as acceptable or not is the business of applying the principles of the scientific method or, more generally, the standards applicable to the practice of “normal” science. The issue for grounded theory then becomes one of either establishing its own logic of validation or passing a litmus test based on scientific reasoning.

Under Rudner's (1966) description, the first alternative is not possible because the issue would become circular: We judge grounded theory by the very constructs that were used to generate it. The issue of a logic of discovery for him is, of course, moot. What criteria then should be applied to judging the adequacy of grounded theory as a theory? In other words, how are scientific theories evaluated? Even with the numerous problems associated with this issue (see, for example, Laudan, 1990, and Morse, 1997, for a perceptive analysis), broad criteria such as simplicity, a valid deductive structure, overall explanatory power, and the ability to predict might be considered as generally descriptive characteristics used to assess the scientific adequacy of theories. For grounded theory, because it often is described as “interpretive,” the problem is one of accepting such criteria. If they are refused as being inappropriate, others must be advanced or an argument made that there are no criteria to evaluate this type of activity. Perhaps there is also the possibility of some type of middle position, using some criterion alone, or using some but adding others. However, this stance is probably not desirable because it opens up the possibility of including a wide range of non- or semirelevant criteria.

Although the criteria suggested here are difficult to clearly apply to the grounded theory case, some mention of them will be made, with a focus on a particular one. In terms of simplicity (or parsimony or elegance), grounded theory cannot be ruled out as approaching this goal. For example, Glaser and Strauss's (1967) stages of (a) incident comparing in relation to categories, (b) the integrating of categories with their properties, (c) theory delimitation, and (d) theory writing can be considered to reflect a parsimonious structure. Moreover, Strauss and Corbin's (1990) later refinements of these steps do not multiply “unnecessary entities” and therefore retain the basic parsimony of the original formulation. The second criterion of a deductive structure may not be directly relevant in that Glaser and Strauss state up front that their intent is to develop grounded theory as an exclusively inductive enterprise. What is being advocated is a process of theory generation that is not dependent on existing categories from which to deduce other categories using the rules of deductive logic. Rather, the focus is on developing categories and



delineating their properties inductively (see Note 2). Such a description may be strengthened further by arguing that it does have the general logical criterion of consistency (Barker, 1989). More generally, theory generation or formulation must necessarily use inductive methods, and because Glaser and Strauss argue for grounded theory as a process of theory development, the focus on deduction as an essential property of all theories may not apply here.

The issue of explanatory power is, however, an important criterion of any theory. Again, acknowledging that the term *explanation* is complex and ambiguous (Putnam, 1973), we could say (roughly) that it applies to providing a theoretically plausible answer to a problematic situation. Grounded theory fits this criterion because its avowed purpose is to provide a plausible explanation of some phenomenon, fairly limited in scope in terms of generating a provisional theory.

We have left the final criterion, predictability, for last because it is on this issue that grounded theory, in our view, must be examined carefully. Generally speaking, prediction remains an important (if not the most important) aspect of what it means to have a theory. If something is properly called a theory, the argument goes, it must have this characteristic. On this account, a theory's capacity for prediction, and especially accurate prediction, is the way in which (eventual) explanations are provided. Prediction, then, is at least a strong necessary condition for saying one has an actual theory. This characteristic also would be a central element in Rudner's (1966) notion of the logic of justification. We raise this issue because we believe it is at the heart of understanding the idea of grounded theory. Moreover, this issue may serve as a means itself for evaluating grounded theory as a useful methodology within the interpretive sciences. Finally, the issue of predictivism is the focal point of an ongoing and significant debate within the psychology, sociology, and philosophy of science. Although not presently widely recognized, this issue is on par with the paradigm debates of qualitative versus quantitative research methods of the past 15 or more years. We will outline the major assumptions of the debate concerning predictivism and then apply them to grounded theory.

## **GROUNDED THEORY AS PREDICTIVISM OR ACCOMMODATION**

The essence of this debate has been framed by Maher (1988, 1990) and can be symbolized as follows:  $P(H/\bar{E}O) > (H/EO)$ . That is, the probability of explaining a hypothesis (or theory), given the evidence, is greater if the evidence has not been observed (i.e.,  $\bar{O}$ ) at the time the hypothesis (theory) was formulated. Put slightly differently, the issue is whether the major function of a theory is to predict, or can a theory be judged to be adequate if it is seen as accommodating certain data? Accommodation is the process whereby a body of data is given an explanation or interpretation by showing it to be consistent with some existing theory. No prediction is involved, but the data become confirming in that they make the theory appealed to (more) credible. What is at stake, ultimately, is the issue of theoretical explanation: that is, the type of explanation generally judged to be the most significant type in matters of genuine knowledge production.

Maher's (1990) argument is that unless a theory is able to predict, it does not allow itself enough genuine risk of modification or falsification. On this account,

predictions are plausible but unknown states of affairs, which if confirmed as genuine predictions, enhance the credibility of the theory. In itself, the predictivist thesis has been around in various forms (Popper, 1959; Rudner, 1966) for quite some time; its uniqueness in its present form is that it is counterpoised with the accommodationist view. The latter view, the argument goes, may be equally efficacious in explaining the purpose of theories. By way of an example to illustrate the contrasting conceptualizations, let us assume we have something called an Effective Nursing Schools Theory, which predicts that if a given school has certain characteristics, the learning outcomes of students will fall within a specified and fairly narrow range. The prediction is tested and, indeed, is supported. From the accommodationist's perspective, existing data on outcomes (however obtained), when examined, are seen to correspond nicely with the existing Effective Nursing Schools Theory. Moreover, the plausibility of the accommodationist position is not diminished because of its a posteriori focus. Indeed, it is very possible that the data themselves may entail (in the formal logical sense) the appealed-to theory. This characteristic alone makes the accommodationist position plausible.

If both are plausible, where is the problem? The issue lies in arguing which one, if either, is still capable of rendering the better (or best) explanation. Even acknowledging the factual ambiguity of *better*, what may characterize one over the other as preferable must be sought in the types of inferences both make. We will return to this topic shortly, but first, some analysis needs to be made concerning the status of grounded theory in terms of these positions.

Because grounded theory is ultimately the end product of a process, it is this end point that must be examined to assess its status in terms of the predictivist versus accommodationist issue.<sup>4</sup> As Strauss and Corbin indicate (1990), grounded theory is

*inductively* derived from the study of the phenomenon it represents. That is, discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory should stand in *reciprocal* relationship with each other. One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge. (p. 23)

To use our previous example, if the nursing researcher was interested in building a theory of nursing school effectiveness, the construct itself would serve as the beginning stage and, through the inductive procedures identified by Glaser and Strauss (1967) and Strauss and Corbin (1990), eventually lead to a unique grounded theory of nursing school effectiveness. However, a central question then becomes, Once the end stage is reached (i.e., you now declare you have a grounded theory), what is the exact status of such a theory? It is not clear from the writings on grounded theory if the end-point formulation is then an explanation of the phenomenon it was trying to explain in the first place, or if the end point constitutes a stage at which the theory is grounded but then needs to be further tested or assessed in some way?<sup>5</sup> The first case would suggest that the process itself not only creates the theory but also simultaneously validates it, whereas the second case suggests that the process is a preliminary step to eventual testing.

The distinction is important in terms of associating the method of grounded theory as one uniquely suitable to the area of qualitative inquiry. Although Glaser and Strauss (1967) thought of the construct in broader terms, as an approach for the

human sciences generally, increasingly, grounded theory has become identified as a qualitative research methodology. If this is an accurate construal, then viewing the nature of how a process produces a grounded theory may imply that this is the defining paradigm of what it means to (theoretically) explain in qualitative inquiry. Thus, if a grounded theory is what you end up with as a result of certain inductive procedures, and if the procedures are in some way themselves valid, the theory is then complete in itself—the end product explains the initial phenomenon of interest.

On the other hand, if the grounded theory is meant for further testing, its status at this point is problematic. The problem lies in that although the theory is grounded, this in itself is not sufficient to say it has explained a particular phenomenon.<sup>6</sup> Likewise, if this interpretation is the one that correctly applies, the procedures leading up to its formulation have no privileged status in themselves as uniquely inductive. In fact, an argument can be made that any process of theory development, within any area of inquiry, is initially (and must be) inductive.

It also may be worth mentioning briefly that the term *induction*, as a unique feature of what it means to do grounded theory, has a certain degree of ambiguity associated with it (see Note 5). The ambiguity centers around a conflation of induction as a type of research process and its more traditional use as a form of argument. From the literature on grounded theory, it appears that a loose definition of the first example is intended. Induction is first posited as a contrast to deduction, with a veiled reference that if theory construction is associated with the latter form, it somehow must be associated with the undesirable consequences of traditional logical and empirical positivism. As we mentioned earlier, grounded theory need not be overly concerned with this aspect of theory construction and, indeed, may reject it if its own version of what it means to construct a theory is different from this aspect, that is, different in the sense that one is able to explain a phenomena without recourse to a theory's deductive features. However, this contrast is seldom made.

Returning to induction as a feature related to method, much of the discussion here (e.g., Miles & Huberman, 1994) concerns how categories are derived from codes. The intent of grounded theory is to develop categories that proceed from the specific to the general, eventually determining one or more core categories that uniquely capture some important feature(s) of the phenomenon of interest. In general, there are three aspects of this form of induction: (a) more general or unspecified categories yielded through open coding are identified; (b) these are further refined, possibly in both quantity and quality; and (c) a set of basic, core categories are finally determined and, possibly, linked through axial coding procedures. Categories, especially before the core categories are developed, gain currency as valid constructs to the extent they become saturated, that is, additional information does not alter the meaning of the category or its associated properties. This type of induction seems to be an "adding-on" one in which categories are both developed and then justified by instances that properly apply.

## **IS GROUNDED THEORY PREDICTIVIST OR ACCOMMODATIONIST?**

We will leave mention of inductive arguments for the final section. What we wish to do now is situate grounded theory, as theory, within either the predictivist



or accommodationist framework. To do this, we must consider a hypothetical time period at which a given theory comes to be declared as such, that is, the process of formulating the grounded theory has been completed. Perhaps as already anticipated, there is not a clear-cut distinction here. Pandit (1996), for example, in describing how he used his version of grounded theory, describes a ninth step in the process, saying, "The ninth and final step is to compare the emerged theory with the extant literature and examine what is similar, what is different, and why" (p. 9). He goes on to cite Eisenhardt (1989) on this point:

Overall, tying the emergent theory to existing literature enhances the internal validity, generalizability, and theoretical level of the theory building from case study research because the findings often rest on a very limited number of cases. (p. 545)

It seems that grounded theory is closer to the accommodationist view in that one gains additional support for the theory by referencing it to another one or some body of extant literature that, presumably, concerns other theoretical frameworks. Begging the question of exactly how this is done (methodologically), the more germane question is, Why is it done? One implicit reason seems to be that such accommodation lends credence to the grounded theory. But if this is so, it militates against the very reason for engaging in the practice of grounded theory. If the grounded theory is consistent with existing theories, its uniqueness (and this is the point of grounded theory) is compromised.

The accommodationist nature of grounded theory may not necessarily be an unwanted feature; what it does suggest, however, is that the process of validating such theories in reference to others is a more established one. Such a process of validation by osmosis may or may not be desirable, but it seems to be a feature of such theorizing, and as such, its claim to being a unique way of theorizing must be further examined. Nevertheless, if grounded theory is accommodationist in this sense, it does not fully argue against its being explanatory. That is, if a grounded theory purports to explain a phenomenon in some presumably unique fashion, it may still fully claim to do so, whether its findings are or are not accommodated by a given theoretical framework.

The overarching issue, of course, is, How well does grounded theory explain a phenomenon if it is accommodationist? For predictivism, the answer would be "probably not very well." Or more precisely, perhaps grounded theory does explain well, but to make this determination requires an independent test; and such a test is only possible if a prediction can be made. Under the predictivist view, if grounded theory is truly a theory (even with broadly defined but generally agreed on criteria), it ought to be able to generate testable claims. Predictivists (Maher, 1988, 1990) argue that a theory's credibility is a function of its ability to generate predictions, to test findings as opposed to accommodating those same findings. Although this, again, sounds somewhat like Popper's (1959) falsificationist theory, the difference is that the predictivist model is not concerned with subjecting a given theory to repeated efforts to falsify it but rather to making the claim that the very act of being able to test predictions is the hallmark of what it means to say you have a genuine theory. On this construal, theories that accommodate—such as grounded theory—are not genuine theories because they cannot predict, and consequently, they cannot be adequately evaluated.

But is it clear that grounded theory is never predictivist? This is an ambiguous issue at the present time. Glaser and Strauss's (1967) original idea that grounded theory is a provisional theory open for further testing suggests the possibility of prediction. Yet, this issue (to our knowledge) has never been systematically addressed. There is nothing in principle that would prevent grounded theory from having this characteristic. Perhaps the reluctance to do so has been associated with predictivism as a traditional positivist tenet, one interested in empirical testing. The testing of a prediction, however, need not be empirical, in the quantitative sense of that term (e.g., Miller & Fredericks, 1989). The explicit reluctance to visualize grounded theory as potentially or actually predictivist also may be linked to its mystique: Namely, if it is grounded, producing a unique interpretation, nothing more is needed. Moreover, the absence of specific predictivist concerns may be based on the belief that if the specific procedures for coding and saturation are followed, these are sufficient for both identifying and explaining the phenomenon. At this stage, it appears that grounded theory is (at least implicitly) most closely identified with the accommodationist view. Over and beyond this, however, is the central concern of *how* a grounded theory explains. We now turn to this issue.

## IBE

To say that grounded theory explains by referencing it to either an accommodationist or predictivist position is to tell only part of the story. What is left untold is how grounded theory explains and what is thereby actually explained? IBE has recently become a significant focus of controversy within the philosophy of science and social science (Lipton, 1993; Rappaport, 1996). Originally identified by Harman (1973), it also is defined by him as, "We are led to construe induction as inference to the best explanation, or more precisely as inference to the best of competing explanatory statements" (p. 140). What is ultimately at stake in grounded theory is the credibility of its proffered explanations, but the underlying assumptions of how these occur have not been explicitly dealt with by any writers in the area.

One clue is that grounded theory is always thought to be highly inductive. However, this claim, as mentioned, is more of a buzz word to identify it as a method unique to qualitative inquiry rather than an epistemological claim. That is, the idea of induction as presently used in grounded theory is both too narrow and too broad: It neither serves as a specific guideline to the doing of research, nor is it an adequate justification of how one comes to know through this mode of inquiry. More specifically, within grounded theory, induction as a method of looking at particular instances of a phenomenon is conflated with induction as a form of argument. This conflation results in confusion about how a grounded theory purports to explain, and how this explanation rather than some other one can be defended.

What appears to be the case in grounded theory is that it is fundamentally a form of inductive argument. Yet, this point is never explicitly addressed in the literature, and not doing so gives the impression that the process of formulating such a theory is somehow unique. In fact, as an argument form, it has the following structure: "The observed data are such and such. Hypothesis H is the likeliest of the competing potential explanations of these data. So, (probably) H is true" (Rappaport, 1996, p. 67).

The first premise is basically nonproblematic and is what grounded theory uniquely claims to produce through coding and saturation. For the second premise, grounded theory may be substituted for H. It is here that grounded theory needs additional clarification. From one perspective, if a grounded theory is wholly unique, there is no need to consider any potential rival explanation; indeed, there may not be any, and therefore, the criterion of "likeliest" is simultaneously met. In principle, this could be the case, but grounded theory does advocate possible refinement and revision of categories as well as provisional testing. If this is done, however, there is at least a tacit recognition that other explanations are "out there," which may be better, worse, or as good as the one being advanced. More directly, grounded theory does not address how competing explanations are to be handled, and claiming uniqueness for the theory is not sufficient. Moreover, the uniqueness claim is lessened to the extent that accommodationist principles are admitted. Even if the term *likeliest* may not be appropriate here because of its own potential ambiguity (e.g., it may be a Bayesian notion), the point is that grounded theory needs to but has not raised this important point.

Without addressing it, the conclusion of the argument is weakened. Furthermore, if the second premise is not dealt with, grounded theory's claim to explain is substantially weakened. IBE is not possible unless one accepts the implicit grounded theory assumption that the very process of generating this type of theory automatically settles the IBE issue. We do not believe such a conclusion is warranted. On this construal, grounded theory is basically a way of making an inductive argument dressed up in a new label.

## THE FUTURE OF GROUNDED THEORY IN HUMAN SCIENCE RESEARCH

We see the future of grounded theory as a research enterprise pointed in another direction. One of the most striking but generally unrecognized features of grounded theory is its potential to understand the context of discovery. Unlike the negative attributions of Rudner (1966), the context (or logic) of discovery is beginning to show promise as a major area of theorizing about how theories come to be developed and assessed (Kantorovich, 1993). As Barnes (1996) indicates, even Maher's (1988, p. 282) strong commitment to predictivism is tempered by acknowledging the central role of discovery. Barnes cites Maher as follows:

At least until fairly recently, it has been generally accepted in the philosophy of science that the method by which a hypothesis was discovered is irrelevant to the confirmation (or corroboration) of that hypothesis (Popper, 1959, p. 31f). A corollary of our explanation of the predictivist thesis is that these widely accepted views are incorrect. For we have seen that successful prediction provides reason to think that a discovery method is reliable; and since reason to believe a method reliable is reason to believe the hypotheses it generates are true, it follows that the method by which a hypothesis is generated is indeed relevant to the confirmation of that hypothesis. (p. 407)

Barnes, however, argues further that Maher's (1988, 1990) recognition of the importance of the context of discovery does not go far enough. What is needed, and

presently is missing in even the most sophisticated accounts of theory building, is explicit attention to what Barnes (1996, pp. 402-405) calls the background assumptions and causal histories involved in the context of discovery. That is, how a theory comes to be constructed and how it subsequently comes to explain are closely tied to the context and logic of discovery.

The terms *background assumptions* and *causal history* may be more specifically labeled as the cognitive strategies employed in this process. In this sense, the context of discovery is not simply an open-ended psychological process, but rather, it is a self-conscious and deliberate search for the logic or methods or how one comes to develop a theory. Here, grounded theory has a decided advantage because it has always been associated with the process of category formation, refinement, and analysis. Within the context of discovery, grounded theory's hallmark is its emphasis on the process of theory development. What it has not done sufficiently, however, is identify the more specific mechanisms of a logic of discovery.

Barnes's (1996) ideas of background assumptions and causal history suggest that the process of hypothesis or theory development itself is grounded in a series of possibly complex but discoverable rationales.

What, then, is such a logic of discovery? Although our suggestion remains tentative, we believe it lies in the direction of inductive inference and specifically the kinds of basic inductive processes suggested by J. S. Mill (1970). It is interesting to note that the most sophisticated attempt to explain the process of IBE (Lipton, 1993) has been shown by Rappaport (1996) to be basically a sophisticated version of Mill's classic rules of induction, most notably the Methods of Difference and Residues.

Although Barnes (1996) and Maher (1988, 1990) do not explicitly refer to IBE issues or Mill's (1970) Methods, we see their views on the need to focus on the context and logic of discovery as (implicitly) compatible with Rappaport's (1996) suggestions. On our interpretation, the logic of discovery is the process of applying Mill's methods, although this is not recognized because it is done implicitly. Following Lipton (1993) here, our contention is that if sufficient attention were paid to how (cognitively or psychologically) in grounded theory we come to give explanations, the logic would be that of Mill. In other words, both premises of the inductive argument, mentioned previously, could be given more specificity if it could be shown that the process of making an explanation most likely relies on the types of methods identified by Mill.

If such a claim is plausible, the notion of grounded theory is strengthened and justified. What grounded theory is about is the making of credible inductive arguments for phenomena situated within a context of discovery whose logic is some version and application of the methods of induction. For example, an appeal to Mill's (1970) methods can provide the explicitly plausible framework for defining and justifying the process of category formation—at present, the weakest part of the grounded theory enterprise. Thus, in Glaser and Strauss's (1967) classic article on the constant comparative method from which the unique construct of social loss emerged, if it could have been demonstrated that the process of category selection and saturation was based on specific rules of inductive inference, a firmer rationale for what it really means to "ground" a theory would have been provided. Put differently, the grounded notion of grounded theory is the key concept in arguing for its uniqueness as a type of theory construction. The important claim that it is grounded because it is highly inductive becomes fully explained—and it can by appeal to Mill (1970) or Lipton (1993), for that matter. Clarification of grounding, in turn, shows

that grounded theory provides inductive arguments for inductive explanations. Moreover, the issue of whether grounded theory is an adequate theory because it is or is not accommodationist or predictivist is not that important: Grounded theory is a type of theorizing, focused both on the context of discovery related to a plausible explanation of some phenomenon and providing an inductive argument for its plausibility. It need not either accommodate or predict, although it may do one or the other in principle.

The use of grounded theory as a (broadly defined) methodology for human science research continues to play a prominent role (Miles & Huberman, 1994). It also appears that Strauss and Corbin's (1990) particular version will remain the paradigm case for theory building. The notable advantage of grounded theory is the flexibility it affords in being able to investigate both macro- and microlevel issues. What it lacks, presently, is a clear articulation of how it explains. Our critique has been directed toward this aspect, with the hope that further debate will follow.

## NOTES

1. The issue is not that other criteria for qualitative theory evaluation are not available (see Morse, 1998) but whether the general criteria ordinarily associated with any type of theory development (e.g., generalizability) can apply to the grounded theory case. Of course, if they do not, what then is the status of grounded theory?

2. That the basis of grounded theory is category formation, linking and interpretation is made explicit by Strauss and Corbin (1990) when they state, "The discovery and specification of differences among and within categories, as well as similarities, is crucially important and at the heart of grounded theory" (p. 111).

3. It should be noted in passing that even if, as some believe, the origins of grounded theory lie in symbolic interactionist and pragmatist worldviews, this suggestion, to our knowledge, has never been explicitly documented. On the other hand, even if these origins are correct, it does not imply they preclude an analysis in terms of the discovery-justification distinction so far made; indeed, they invite it, in the sense of showing how either of the above as developed in a particular methodology (i.e., grounded theory) automatically rules out the distinction.

4. Again, we are not denying that grounded theory is importantly a process theory, but the point is that any type of theory must have an end point, a place where something is explained.

5. In other words, *when* the theory becomes grounded is somewhat ambiguous. In part, it seems to be at that stage at which no further elaboration of properties takes place. For example, Strauss and Corbin's (1990, pp. 249-257) last chapter, which sets out criteria for judging a grounded theory study, seems to suggest both a process and product evaluation, with the implication that one's theory is grounded if one has proceeded through a variety of steps. However, there is also a definable product, presumably (see also, Glaser, 1978, pp. 142-157; Glaser & Strauss, 1967, pp. 237-250).

6. Glaser and Strauss (1967) seem to suggest that a grounded theory is both general (and hence is a product) but also accommodationist in the sense that it depends on accumulating "a vast number of diverse qualitative facts" (p. 243).

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